



Mid-rise Wood-frame Construction Handbook

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Summary:

Wood-frame construction is the dominant building construction in low-rise buildings. The growth in the urban population and the need to meet sustainability objectives will mean having to allow taller buildings in areas that were traditionally low-rise construction. While the need for higher and environmentally sustainable building solutions increases, the Canadian codes responsible for the health and safety of buildings continued to limit wood building solutions to four storeys. Mid-rise (5- and 6-storey) wood-frame construction is a natural extension of low-rise wood-frame construction. In 2009, the BC Building Code (BCBC) was amended by the BC Building and Safety Standards Branch (formerly Policy Branch) to allow mid-rise wood-frame construction. The amendment brought the BC Building Code more closely in line with the U.S. states of California, Washington, and Oregon, where mid-rise wood construction is permitted. More than 100 mid-rise wood-frame construction projects in BC followed the BCBC amendment. Later, the provinces of Québec, Ontario, and Alberta took steps to permit mid-rise wood-frame construction, and finally the Canadian Commission on Building and Fire Codes (CCBFC) accepted code change proposals to allow 5- and 6-storey wood-frame construction in the 2015 edition of the National Building Code Canada (NBCC). NRC, CWC, and FPInnovations worked collaboratively on a project, funded by Natural Resources Canada and several provinces to provide additional technical information to support mid-rise wood-frame construction. This Handbook consists of ten multi-disciplinary chapters, which have been prepared to facilitate the design and construction of mid-rise wood-frame construction in Canada. Building on the information that formed the basis of Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) Bulletin and the Régie du bâtiment du Québec (RBQ) guide, this Handbook covers broad design and construction topics and provides practical solutions by making use of the most recently developed technical and research information. The Handbook has been prepared to assist architects, engineers, code consultants, developers, building owners, and Authorities Having Jurisdiction (AHJ). It is designed to be used in conjunction with the upcoming 2015 edition of the NBCC and the 2014 Edition of the CSA Standard on Engineering Design in Wood. It also complements existing design aids such as the CWC Wood Design Manual.

Online Access: Free

Resource Link

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